**What are the four pillars of Object-Oriented Programming? Explain each pillar.**

The four pillars of object programming are abstraction, encapsulation, inheritance, and polymorphism. Abstraction allows us to use a function without necessarily understand what the function is doing. Encapsulation lets us bind code into modules, which makes it more efficient as well as easier to read. Inheritance lets objects reuse properties and methods of other objects, which lessens the amount of code that needs to be written and can temper the code’s complexity. Polymorphism allows an object to do multiple things, such as an addition operation and concatenating strings, depending on the data type the object is using.

https://www.freecodecamp.org/news/four-pillars-of-object-oriented-programming/

**What is the relationship between a Class and an Object?**

A class is a template that creates an object. Everything within a class is defined with curly brackets and will contain elements like methods and constructors. Constructors are a type of method that will initialize the objects that will be used within the class. An object is a data type that stores a collection of inputs so they can be utilized wherever the object is called in the code. Objects and classes allow sections of code to be recursive, and to store or manipulate similar but not identical sets of data. If a class was used to represent a list of names, the objects within the class would be the properties associated with the list, such as addresses or occupations.

<https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Classes>

<https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Object>